



UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/064,474 04/22/98 ROY

S TRA-040

EXAMINER

MM91/0416

DAVID P GORDON
65 WOODS END ROAD
STAMFORD CT 06905

WHITMORE, S

ART UNIT

PAPER NUMBER

2812

DATE MAILED:

18
04/16/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/064,474

Applicant(s)

ROY ET AL.

Examiner

Stacy A Whitmore

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2001.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-21, and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-20, and 26-27 is/are allowed.
- 6) ☐ Claim(s) 21, and 24-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

FINAL ACTION

1. Claims 1-21, and 24-27 are presented for examination.
2. The text of those sections of Title 35, U.S. Code not included in this office action can be found in a prior office action.
3. The rejections are respectfully maintained and incorporated by reference as set forth in the last office action, paper number 16, dated 11/20/00.
4. Applicant's arguments filed 1/22/01, paper no. 17, have been fully considered but they are not deemed to be persuasive.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Segars et al. (6,052,774) in view of Ueki (5,428,618).
7. Segars et al. and Ueki were cited in the last office action.
8. As for claim 21, Segars et al. taught the invention substantially as claimed, including a method of debugging a processor, said method comprising:

providing information about processor activity in real time [col. 12, lines 59-67];

associating the instructions executed by the processor with information about processor activity [abstract; wherein said step of providing information about processor activity includes providing an indication every time the processor stalls that the processor has stalled [col. 12, line 65 - col. 13, line 40, especially lines 26-28].

Segars et al. did not specifically teach said step of providing information about processor activity includes information about every instruction executed by the processor. However, Ueki et al. taught said step of providing information about processor activity includes information about every instruction executed by the processor [abstract, lines 11-13]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Segars et al. and Ueki et al. because Ueki et al.'s activity information about every instruction executed would improve the integrity of Segars et al.'s system to be able to backtrack for recovering an internal state of the system [see Ueki et al., abstract].

9. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segars et al. (6,052,774) in view of Ueki (5,428,618) , and further in view of Folwell et al. (5,473,754).

10. Folwell et al. was cited in the last office action.

11. As for claims 24-25, Segars et al. and Ueki et al. taught the invention substantially as claimed, including the method of debugging a processor as cited above in the rejection of claim 21.

Segars et al. and Ueki et al. did not specifically teach [24] the information about processor activity includes information as to at least one of a jump instruction has been execute, a jump instruction based on contents of a register has been executed, a branch has been taken, and an exception has been encountered, and [25] an indication of an event of a change in status of an interrupt line, internal processor exception, or a jump based on the condition of a register.

Folwell et al. taught [24] and [25] [col. 2, table 3, col. 5, table 4, col. 1, line 64 – col. 2, line 3, and col. 8, lines 1-9].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Segars et al., Ueki et al., and Folwell et al. because having information about processor activity as in [24] and [25] would improve the debugging system of Segars et al./ Ueki et al. by allowing for the understanding of how program flow discontinues are handled [Folwell et al., col. 2, lines 22-24].

12. In the remarks on pages 2-3, applicant argues in substance:

A: Segars et al. does not teach that the debugger runs on it's own clock and the processor runs on it's own clock, and therefore the debugger can determine whether a debugger clock cycle has occurred without the processor executing an instruction

which really means "indicates every time the processor stalls that the processor has stalled".

As to point A: Segars et al. taught the providing an indication every time the processor stalls that the processor has stalled [col. 12, line 65 - col. 13, line 40, especially lines 26-28].

Furthermore, applicant argued that the debugger runs on it's own clock and the processor runs on it's own clock, and therefore the debugger can determine whether a debugger clock cycle has occurred without the processor executing an instruction **which really means** "indicates every time the processor stalls that the processor has stalled". This is not presented as a limitation in the claim language, and is therefore moot.

13. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon the filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35. A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CAR 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

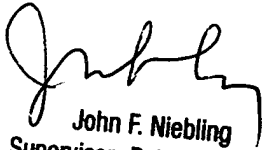
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A Whitmore whose telephone number is (703)

305-0565. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling can be reached on (703) 308-3325. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Stacy Whitmore
April 12, 2001


John F. Niebling
Supervisory Patent Examiner
Technology Center 2800